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October 2015

4-H 401 Water Riches for Youth : Developer Workbook

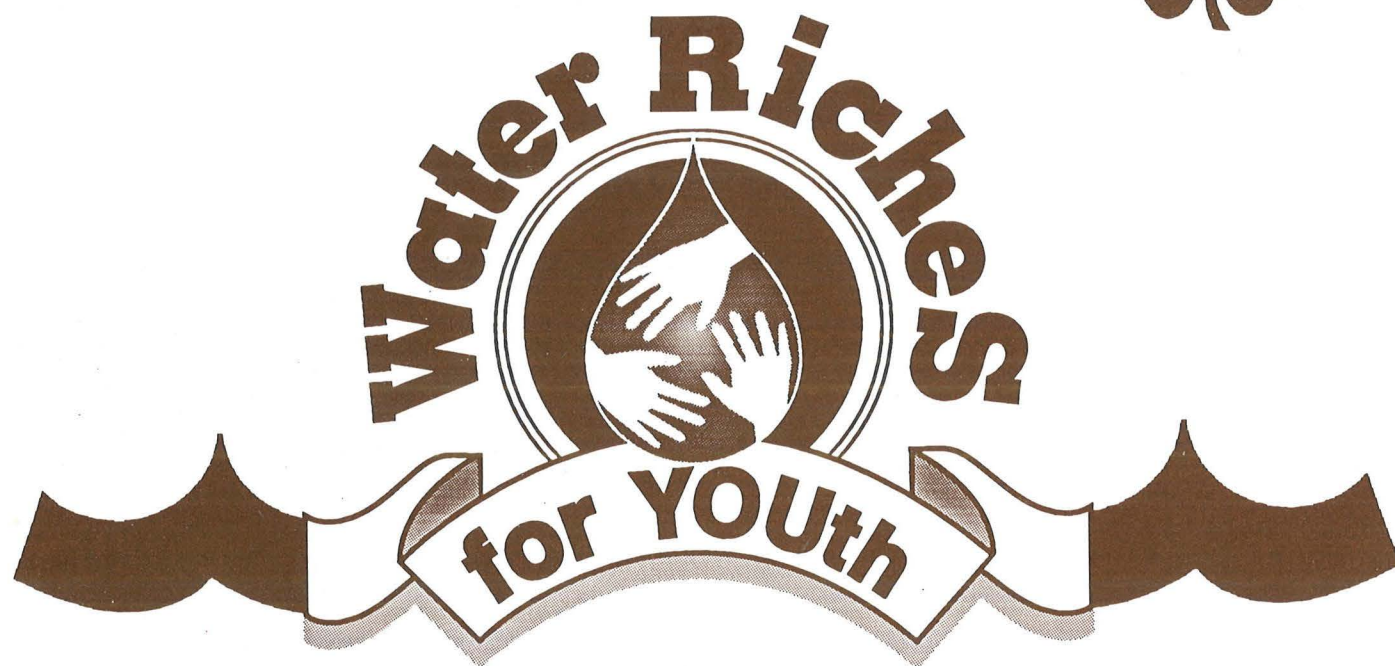
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4-H 401



Developer Workbook



4-H Youth Development
Cooperative Extension, Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln



You just arrived at work and opened the following letter. Congratulations! You are now part of a special project to help your community overcome a serious problem.

For this activity, you are a Commercial Developer. Other types of developers include land developers, housing developers and road developers.

Date _____

Your name, _____

Your title _____

Your business name _____

Business address _____

City _____

State _____

ZIP _____

Dear _____ :
Your name

As you probably are aware, our city's current landfill has been condemned and the city must build a new one and have it operational in 24 months. Because of this immediate problem, I am in the process of putting together a task force to help locate a new landfill.

I am asking you to serve on this committee. All the task force members will provide a balance of knowledge, insight and interest, you have an understanding of commercial interests in our community that will make you an unique and invaluable member of this team.

Some of the ground work has already been laid for this task force. My office has narrowed the number of possible sites down to five. Once the task force has met and discussed all five sites, your committee will narrow the field to three, then two, and finally, to its final recommended site.

We hope this will be a rewarding experience for you. I feel it will be very beneficial to bring together a cross-section of professionals and citizens to help make this important decision. I thank you, in advance, for the time and effort you will put in to help your community in this way.

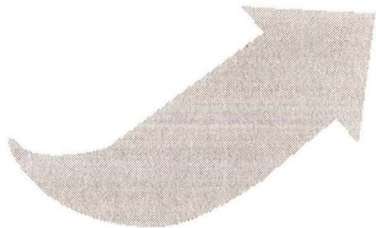
The first meeting of this task force will be _____
Day, Date, Time, Location

If you have any questions, feel free to call my office at _____
We look forward to meeting you at the first meeting. Your mayor's office phone number

Sincerely,

Mayor

Read this carefully to discover your inside information.



You are the only member on your team receiving this information.

Your Role as a Developer

You have been a developer of commercial property in your area for several years. Recently, you decided your community needs a recreation area to give residents and visitors more things to do for leisure and entertainment. After a great deal of searching, you found some land (located within site C) you think will be appropriate for your development. You began planning both a miniature golf course and a go-cart track. The land also has a small lake for both fishing and boating. You haven't told anyone about your intentions, and were very surprised to find yourself a member of the committee and your intended recreation area a possible landfill site! Needless to say, you are hoping Site C will not be the committee's choice! You thought about removing yourself from the committee, but you have always been involved in community decision-making and you do believe you have the community's best interest at heart. In real life, a developer might not share this information with the committee. Someone else might hear of your idea and beat you to it, causing you to lose lots of money! On the other hand, withholding information may result in the committee not making it's best, most informed choice. It is up to you to decide how to handle this situation.

Overview

Welcome to *Water Riches for YOUth!* You're going to find this a different kind of learning activity, so pay close attention.

This situation involves locating a new landfill in your community from among five sites. Careful consideration must be given to this issue. Your team must consider a variety of social, economic, political and environmental issues when determining which site to recommend.

You have been assigned to a community task force. The mayor's letter identified a serious problem with the landfill and a solution must be found.

As a member of this task force or team, you will take the role of a community resident with particular views and perspectives of the problem. The different ideas from the team members will help reach the best decision.

If you don't understand how this activity works, you're going to have trouble "as a Team" so please:

- READ** this workbook carefully,
- THINK** about your responsibility to your group, and
- PERFORM** your role so your group can work effectively.

This workbook will guide you through an interesting team problem-solving activity.

NOTE: You are the **ONLY** member of your team receiving the information contained in this workbook. You need to understand your role and the information in this workbook.

Remember, a team is only as good as its weakest member. Do the best job you can — that's all your team asks.



Here's How This Activity Works

◆ Study the Sites

Your teacher will provide site sheets with basic data and maps.

Study the information provided. Ask questions. Search for other additional information that will help to make a decision. Look for long term and short term impacts of different decisions. Talk to experts in your community to help you gather information. You may have to make assumptions or guess about how the sites might be used and the environmental threats at the sites.

◆ Group Meetings

Your group will alternate between GROUP MEETINGS and INDIVIDUAL WORK SESSIONS. Your teacher will help you get the first group meeting underway, and may call additional meetings from time to time when necessary.

The Team Leader will call the group meetings.

During the group sessions, you will discuss which landfill site to select. When your team seems ready (has discussed the issues, looked at options, weighed the advantages and disadvantages of each site), you may call for a vote to determine the end of one round and the beginning of the next round. At the end of each meeting you'll need to complete the questions at the end of your workbook and discuss how your team is working.

◆ Rounds

During Round 1, all five sites will be discussed, and a vote will be taken to decide which three sites to continue discussing.

During Round 2, three sites will be discussed, and a vote will be taken to decide which two sites to continue discussing.

During Round 3, two sites will be discussed and a final vote will be taken to decide which site the group supports.

◆ Individual Work Sessions

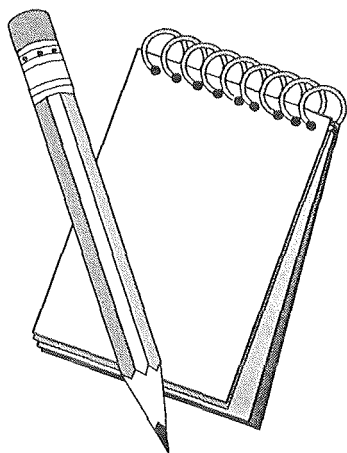
During the individual work sessions, each team member will work from his/her workbook, will work to find answers to questions that arose during the previous group session, and may work on laboratory experiences or special activities assigned by the teacher.

◆ Your Unique Role

Each person has a specific role, different from the others on the team. Read about the group problem. Talk with your parents and others in the community for ideas. Participate in the meetings as you think someone in your role would act.

Your teacher will evaluate the productivity of the entire group as well as your contribution.





Moving Through the Rounds

Be Prepared!

One of the best ways to approach a problem-solving activity is to come to the meetings prepared. By writing down what you want to accomplish, when, how and who should be involved, you will help the group find workable alternatives and solutions.

Use the worksheets provided. They will help you organize the presentations you bring before your team.

This group problem-solving activity will take place in three rounds. Round 1 will begin only after the teacher and team leader believe everyone is ready. Rounds Two and Three will be called in that same manner.

If team members need more time to gather information or ask more questions — either individually or in group discussion — the round continues. **A ROUND ENDS ONLY AFTER A VOTE IS TAKEN!**

ROUND 1:

- The group will meet to discuss the features, advantages and disadvantages of each of the five possible sites for the landfill.
- Before closing Round 1, the group will VOTE to continue studying THREE sites. Since you have a specific goal to keep the landfill away from your site, you will probably want to enter Round 1 with strong arguments in favor of the other sites and against the one closest to you.

ROUND 2:

- Discuss the advantages, disadvantages, alternatives to and consequences of the three sites still being considered.
- Vote on the three sites to narrow the field to two.

ROUND 3:

- Discuss the two sites, as above.
- Vote on which site group prefers.
- Prepare for final presentation, as teacher directs.

This workbook has a series of activities you complete during this project. Your teacher may provide additional activities and resources for you to use.



Developers Give Life to The Community

What makes a community a great place to live?

Everyone has different ideas about what makes a community a good place to live. Some individuals want to live in communities which are fairly self-contained. They want a wide range of services, including medical care (doctors, dentists, hospital), a school, shopping, entertainment, a variety of housing options, including apartments, single-family dwellings and condos, and plenty of places for people to work.

Other people prefer to live in a small community with just a few vital businesses like a grocery store and a gas station. They are willing to travel to another community to work, attend school, shop and enjoy entertainment.

Most communities, no matter what their size, have some unmet needs. For example, a rural community may need more housing for people who are planning to move there from farms as they retire. Another community may need new shopping areas. Some communities may need more recreation areas such as bike paths and golf courses. Another community may plan a commercial park to attract an industry which could provide jobs for its residents.

So how are these needs met? A developer or group of developers are often involved in helping a community meet their physical needs.

A developer may be anyone who sees an opportunity and knows how to make an idea become reality. She or he may be an individual with an idea, an entrepreneur who devotes full time to pursuing development, or it may be a corporation located anywhere. Developers have skill in planning, financing, promotion and marketing.

A development project could take form like this:

Community Need- A successful developer knows the needs of the community and has a vision of how the need can be met. A housing developer may survey the community to determine the market for new housing. If there seems to be a shortage of desirable apartments, the developer will plan for more.

Development proposal- With an idea in mind, the developer begins the search for suitable land on which to build. An architect will draw the plans. Streets, access to water, sewer service and other utilities all must be carefully explored. The developer must comply with zoning laws and other regulations. Proper land use is a critical issue in development projects. Enforcing zoning regulations is an important function of government. Projects that do not meet zoning requirements must be changed or moved to a different site.

Construction- When the plans are approved, financing must be obtained to pay the cost of constructing the apartment houses. The actual construction of the project soon becomes a spectator event as the community watches the building take form.

Marketing- If the planning was correct and creative, there will be potential buyers. Advertising and conducting 'open house' are two ways of finding a buyer. A banker will help in arranging financing for the purchaser. An attorney will advise on the legal aspects of the project. If all goes well, the transaction will be completed and another development project has benefited the community by providing jobs and a product that someone needed.

Development projects may be simpler than this or they may be much more complicated. The steps will be similar.

Water Riches for YOUTh!

Think about new development in your community. Write down developments that have occurred in the last 5 years.

Who was responsible for the developments?

What effect has it had?

About Water

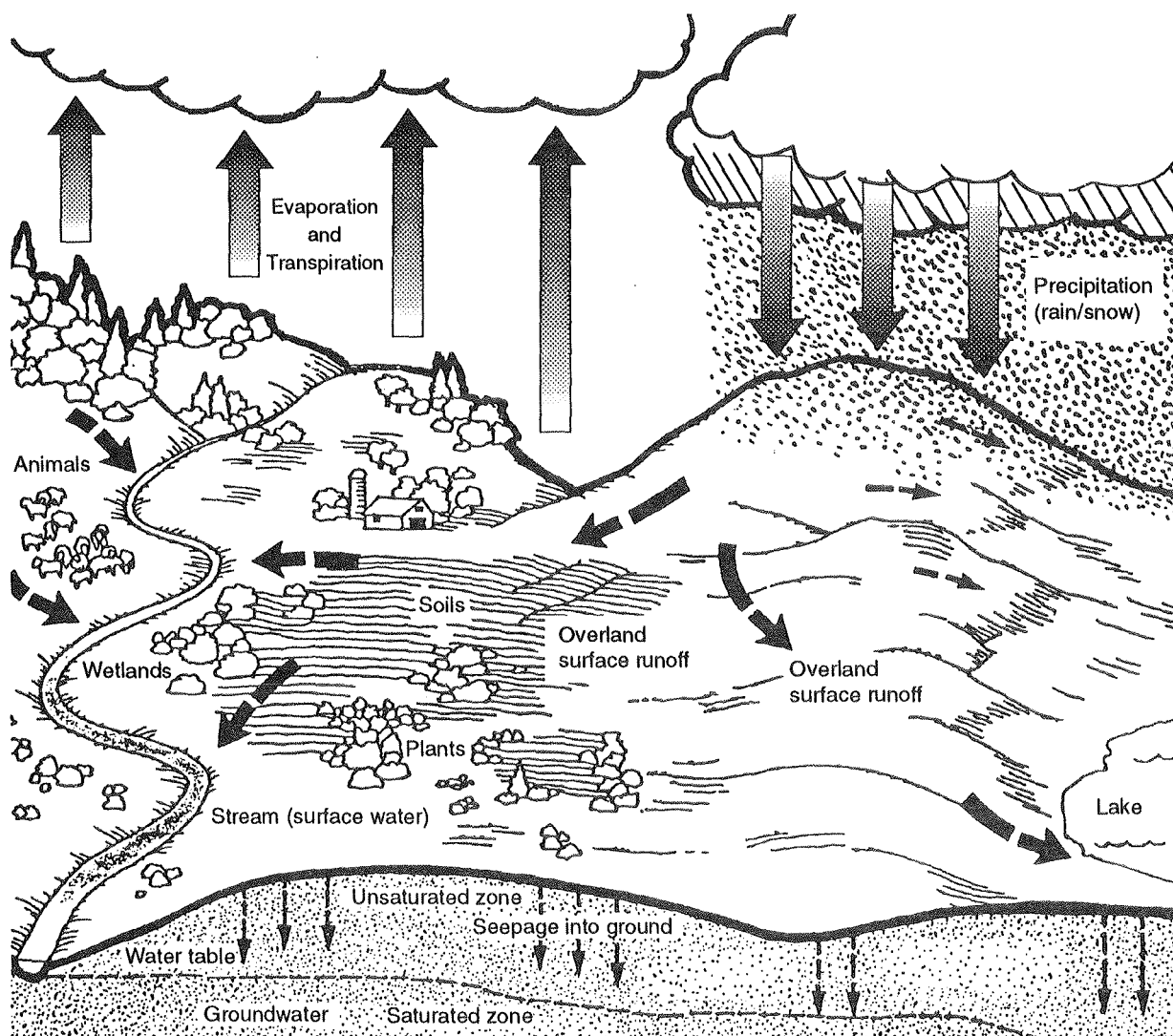
Water is one of Earth's **NATURAL RESOURCES**. That is, it exists in nature (*natural*), it is necessary for all plants and animals to survive, and it is used to help other things happen (*resource*).

Water exists in nature in three forms — liquid, solid and gaseous. These three forms move continuously through the **HYDROLOGIC CYCLE**.

During this cycle, water rises from the soil and vegetation on Earth in the gaseous form **VAPOR**. When the warm, moist air gets cooled, the vapor **CONDENSES** in the sky and forms droplets, which eventually drop back to the ground as **PRECIPITATION**.

Once the water has fallen to the ground, some of it runs off down a slope to join a stream, river, lake or ocean. These visible bodies of water are known as **SURFACE WATER**.

Still other water soaks into or **INFILTRATES** the soil surface. The water that enters the soil can evaporate directly from the soil surface, be used by plants and reenter the atmosphere as water vapor, and some may work its way through the spaces between the soil particles, sediment, gravel and rocks to become **GROUNDWATER**.



Source: Michigan State University



Site Evaluation

Think about the terrain conditions at the five sites identified. Which sites would provide the terrain you would like for your recreation area?

Which sites would be easiest for potential users of the recreation area to get to?

What factors make Site C a good choice for a recreation area?

Look at all sites from a recreational development perspective.

	Site A	Site B	Site C	Site D	Site E
Unique characteristics					
Advantages					
Disadvantages					

Do you still think Site C is the best selection? Why or why not?



Starting a New Landfill

Even though you are not developing the landfill, you understand the advantages, disadvantages, complexities and complications of changing a parcel of land from one use to another.

As a developer you understand that neighboring land-use can have a significant impact on property values. You also recognize that adjacent property owners, homes and businesses, may be very opposed to changes in land uses. Because of this, you are naturally curious about how new construction techniques might minimize the negative impact of land-use changes.

For example, new, strict construction methods are now required to protect the environment. In the past we were often not very careful about how we handled our wastes; in some places solid wastes were simply tossed over a creek bank or thrown in a huge hole and forgotten. Unfortunately, nature doesn't just "forget" what has been tossed out of sight.

Contaminants, ranging from mercury to nitrates, and non-degradable wastes, from glass to styrofoam, all stay in the environment indefinitely. These contaminants can cause problems ranging from contaminated drinking water to litter.

Engineers are constantly trying to find new and better ways to help protect the environment and neighborhoods from the hazards and side-effects of landfills. And the government changes its regulations on landfill construction when new knowledge becomes available. State and local governments anticipate that federal guidelines will get stricter in the future. New landfills are built with safety and handling measures that meet or exceed the federal guidelines.

Find the answers to the following questions. This information is important to landfill site selection. A landfill developer in your community or nearby may be able to help you with this activity.

You may also be able to get information from the Environmental Protection Agency and the Department of Environmental Quality.



Questions that need to be asked about landfills:

How will blowing debris be controlled?

How will odor be controlled?

How will the neighborhood be protected against rats and other scavengers?

How would groundwater quality be protected?

How will the landfill effect the property value of nearby land?

What recourse do residents and landowners have if the above things occur?

- monetary?
- protection from falling land values?
- tax-support for legal assistance?
- health insurance?
- other?

Could land be used another way more beneficially?

Think about possible growth. If the communtiy grows, what happens to the life of the landfill?

What other questions would you like answered regarding the landfill construction?



Evaluating Our Progress after Round 1

Rate yourself on the following items with 5 being the best.

I was prepared for our meeting	5	4	3	2	1
I shared information that helped us evaluate the sites	5	4	3	2	1
I listened carefully to what others had to share	5	4	3	2	1
I asked questions to gain more information	5	4	3	2	1
When I didn't agree with someone, I did so in a friendly manner	5	4	3	2	1

What is one thing you can do next time to help the group function better ?

Answer the following questions as a group.

As a group, what are some things you all need to work on next time ?

What is the most important thing you accomplished in this round ?

What would you like to accomplish in the next round ?

Evaluating Our Progress after Round 2

Rate yourself on the following items with 5 being the best.

I was prepared for our meeting	5	4	3	2	1
I shared information that helped us evaluate the sites	5	4	3	2	1
I listened carefully to what others had to share	5	4	3	2	1
I asked questions to gain more information	5	4	3	2	1
When I didn't agree with someone, I did so in a friendly manner	5	4	3	2	1

(continued on page 12)

What is one thing you can do next time to help the group function better ?

Answer the following questions as a group.

What are some things you all need to work on next time ?

What is the most important thing you accomplished in this round ?

What would you like to accomplish in the next round ?

Evaluating Our Progress after Round 3

Rate yourself on the following items with 5 being the best.

I was prepared for our meeting	5	4	3	2	1
I shared information that helped us evaluate the sites	5	4	3	2	1
I listened carefully to what others had to share	5	4	3	2	1
I asked questions to gain more information	5	4	3	2	1
When I didn't agree with someone, I did so in a friendly manner	5	4	3	2	1

Answer the following questions as a group.

What is the most important thing you accomplished in this round ?

What do you feel the strengths of your group were ?

What do you feel the weakness of your group were ?

What other type of problems may you solve in the future using this same technique ?



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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Kenneth R. Bolen, Director of Cooperative Extension, University of Nebraska, Institute of Agriculture and Natural Resources.



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